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**REGULATORY SCOPING EXERCISE FOR THE USE OF
MARITIME AUTONOMOUS SURFACE SHIPS (MASS)**

Comments on document MSC 102/5/14

Submitted by the Russian Federation

SUMMARY

Executive summary: This document comments on the legislative matters of the Russian Federation concerning the MASS operation, as stipulated in document MSC 102/5/14

Strategic direction, if applicable: 2

Output: 2.7

Action to be taken: Paragraph 14

Related document: MSC 102/5/14

Introduction

1 This document is submitted in accordance with paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.2) and comments on document MSC 102/5/14.

Background

2 The studies conducted within the RSE by the participating countries and the practical experience in developing legal and technical conditions for MASS-wide operation in the Russian Federation make it possible to formulate a number of important comments concerning national regulations of MASS operation.

3 Through document MSC 102/5/14 the Russian Federation informed the Committee of the legislation work carried out in the Russian Federation on the development of the legal domain for conducting experiments and industrial operation of autonomous ships. It was stated in the document, for example, that the Ministry of Industry and Trade of the Russian Federation had developed a draft federal law on amending the Merchant Shipping Code of the Russian Federation and other legislation in part of legal aspects concerning operation of autonomous ships.

4 The Russian Federation intends to inform the Committee, through this document, on the progress achieved in considering the draft legislation and on the issues emerging in the course of the thorough discussion of the prepared draft legislation.

Progress in preparation of the Russian draft law on autonomous ships

5 Since document MSC 102/5/14 had been prepared and submitted by the Russian Federation, the draft federal law on autonomous ships was considered by all the ministries concerned of the Government of the Russian Federation and became the subject of the public discussion within the shipping community with the participation of maritime lawyers and taking account of the documents (notes) submitted to MSC 102 by the IMO Member States and observers. After the discussion, the draft law was improved by the "МАРИНЕТ РУТ" (MARINET ROUT), the Centre for Promotion of Technologies of Autonomous Shipping, established by the Russian University of Transport together with the MARINET Departmental Centre under the order of the Minister of Transport of the Russian Federation, and at the moment the draft law is being prepared by the Government of the Russian Federation to be forwarded to the State Duma of the Russian Federation (Russian Parliament). The State Duma of the Russian Federation has included the draft law into the priority list of draft laws for the spring session of 2021, and the adoption is envisaged for July 2021. The draft law is expected to come into force before the end of 2021. Under the legislative process adopted in the Russian Federation the draft law may undergo certain amendments before it is finally adopted, however, the conceptual provisions are unlikely to be altered.

6 For the complete realization of regulatory standards of the Russian Federation in part of operating autonomous ships, after the law on autonomous ships comes into force, a number of regulatory acts will have to be adopted by the Government of the Russian Federation and the Ministry of Transport of the Russian Federation to regulate technical and administrative aspects of operating autonomous ships. This process may take up to six months. So the complete set of regulatory documents governing the operation of autonomous ships flying the State flag of the Russian Federation or foreign autonomous ships calling at Russian ports may be prepared in early 2022.

Matters for further discussion in developing MASS related legislation

7 In the first two degrees of autonomy, crew members will be present on board ships. Part of the functions performed at present by crew members on board will be performed either by the ship automation system or by remote operators and remote automation means. So the automation means do not provide the complete substitution of the human presence in control of the ship but are a mere tool to assist humans in control of the ship: a shipowner, master, remote operator. In this case, control of the ship and safety of shipping rests ultimately within the human responsibility. Requirements should be developed concerning knowledge, skills and abilities of all persons involved in the control process of an autonomous ship, their roles and responsibilities should be defined. The Company's SMC should provide adequate information on the relations existing between the above persons.

8 In discussing the draft law, many Russian experts stressed the fact that the flag State of the ship should provide for the qualified crew for each ship under the existing international standards. Initially it was envisaged in the draft law that for MASS of the 3rd and 4th degrees of autonomy (with no humans on board) the crew will not be formed and the ship control and/or supervision thereof would be performed by specialists outside the autonomous ship. Experts, however, suggested a different approach which, in our opinion, is more relevant to the spirit of the existing regulation. It is proposed that for the crewless autonomous ships, external crew should be formed that would be outside the ship (on shore or on board a different ship) and would be responsible for control of the autonomous ship and for the safety of its navigation.

The requirements for the qualifications and composition of the autonomous ship external crew will be established by the flag State maritime Administration (the Government of the Russian Federation).

9 The liability insurance (civil liability) for the damage caused by an autonomous ship or in connection with the operation of autonomous ships was one of the most widely discussed matters of autonomous ship operation. Experts did not identify any peculiar aspects of liability insurance for the damage caused by autonomous ships if compared with the similar insurance for a ship which is not autonomous. As seen from the insurance practice, it is always either the ship operator or shipowner that is a party to the insurance contract. An autonomous ship like any other ship will have both a registered shipowner and a registered ship operator (company), who will be parties to the insurance contract of the autonomous ship. No particular risks were identified specific to the autonomous ship operation. The Russian draft law suggests that autonomous ship insurance should be performed in the same way as insurance of non-autonomous ships. The risk insurance pertaining to autonomous ships operation should probably receive very thorough consideration on the part of the IMO Legal Committee.

10 The draft law in question is first of all intended for regulating legal relationships arising in operation of autonomous ships flying the State flag of the Russian Federation. The draft law also provides for the standard that when foreign-flagged autonomous ships call at Russian ports, both the international legislation, where it exists, and the national flag State legislation regulating autonomous ships will be accepted, in part of the crew composition and qualifications, survey of technical automation means of autonomous ship, etc., provided the relevant requirements of the IMO instruments are complied with.

11 The draft law does not specify legal provisions depending on the autonomous ship type, purpose, or area of navigation. It is the opinion of the Russian experts that an autonomous ship can be used practically in all the spheres of merchant shipping. It is seen as unreasonable, however, that there would be no crew on board ships carrying passengers. It is stipulated in the improved version of the draft law that an autonomous passenger ship cannot be operated with no crew on board. This limitation, however, does not prevent a passenger ship from having an external crew or from being an autonomous ship.

12 The draft law considers the matters of autonomous ship control during navigation, its calls at seaports and departures from seaports. The draft law presently does not cover the legislative standards dealing with ship loading and unloading, bunkering and other similar operations. It is proposed that these matters be adequately addressed at the IMO level.

Proposals

13 The Russian Federation proposes to take into consideration the information on the status of the national legislation development in the sphere of autonomous navigation, and also:

- .1 to discuss the development of requirements for autonomous ship crew and for the experts involved in control of autonomous ships;
- .2 to consider the matter of "external" crew of an autonomous ship and requirements thereto;
- .3 to consider the matter of liability insurance concerning the risks involved in operation of autonomous ships and to request the IMO Legal Committee, if necessary, to provide their conclusion;

- .4 to note and comment upon, where necessary, the standard of recognizing the flag State national regulating of autonomous ships operation, provided the relevant requirements of IMO instruments are complied with;
- .5 to note and comment upon, where necessary, the regulation of autonomous passenger ships; and
- .6 to initiate discussion of regulating standards for cargo, bunkering and other similar operations involving autonomous ships.

Action requested of the Committee

14 The Committee is invited to note the information and to consider the proposals in paragraph 13 and to take action, as appropriate.
